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Serial. No. 09/358,738

magnetic permeability of the microparticles, and the magnetic permeability of the microparticles comprising a magnetic characteristic of the microparticles.

38. (Amended) A method as set forth in claim 37, wherein said subjecting step comprises the steps of:

determining the inductance of the solenoid coil without microparticles at each of the different temperatures; and
recording the inductance of the coil at each temperature.

39. (Amended) A method as set forth in claim 38, wherein said making step comprises the steps of:

placing the polymeric or pre-polymeric composition containing the microparticles within the coil; and

measuring the inductance of the coil containing the composition including the microparticles.

40. (Amended) A method as set forth in claim 39, wherein said correcting step comprises the steps of:

measuring the temperature of the coil containing the polymeric or pre-polymeric composition containing the microparticles; and

subtracting the inductance of the coil without microparticles at a temperature corresponding to the measured temperature from the measured inductance of the coil containing the composition including the microparticles.

41. (Amended) A method as set forth in claim 40, wherein said coil is capable of at least a 3.7 % change in inductance upon receiving the polymeric or pre-polymeric composition containing the microparticles.


42. (Amended) A method as set forth in claim 40, wherein said coil is capable of at least a

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11.1 % change in inductance upon receiving the polymeric or pre-polymeric composition containing the microparticles.

43. (Amended) A method of measuring a magnetic characteristic of microparticles comprising ferromagnetic or ferrimagnetic material, said microparticles being provided in a polymeric or pre-polymeric composition, said method comprising the steps of: (a) providing an instrument; (b) making a measurement using the instrument; (c) correcting said measurement for the effects of temperature variations on the performance of the instrument; and (d) determining the magnetic characteristic of the microparticles using the corrected measurement.

44. (Amended) A method as set forth in claim 43, wherein said step of providing an instrument comprises the step of providing a solenoid coil and a meter for directly reading coil inductance, the inductance of the coil is directly related to magnetic permeability of the microparticles, and the magnetic permeability of the microparticles comprising a magnetic characteristic of the microparticles.

 45. (Amended) A method as set forth in claim 44, further comprising the steps of:
determining the inductance of the solenoid coil without microparticles at each of different temperatures; and
recording the inductance of the coil at each temperature.

46. (Amended) A method as set forth in claim 45, wherein said making step comprises the steps of:
placing the polymeric or pre-polymeric composition containing the microparticles within the coil; and
measuring the inductance of the coil containing the composition including the microparticles.

47. (Amended) A method as set forth in claim 46, wherein said correcting step comprises the

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steps of:

measuring the temperature of the coil containing the polymeric or pre-polymeric composition containing the microparticles; and

subtracting the inductance of the coil without microparticles at a temperature corresponding to the measured temperature from the measured inductance of the coil containing the composition.

48. (Amended) A method as set forth in claim 47, wherein said coil is capable of at least a 3.7 % change in inductance upon receiving the polymeric or pre-polymeric composition containing the microparticles.

C2 49. (Amended) A method as set forth in claim 47, wherein said coil is capable of at least a 11.1 % change in inductance upon receiving the polymeric or pre-polymeric composition containing the microparticles.

Please add new claims 50-55, which read as follows:

50. (New) A method as set forth in claim 33, wherein said polymeric or pre-polymeric composition comprises an adhesive composition.

C3 51. (New) A method as set forth in claim 43, wherein said polymeric or pre-polymeric composition comprises an adhesive composition.

52. (New) A method of measuring a quantity or volume of a composition containing ferromagnetic or ferrimagnetic microparticles, said method comprising the steps of: (a) providing an instrument; (b) making a measurement using the instrument; (c) correcting said measurement for the effects of temperature variations on the performance of the instrument; (d) determining a magnetic characteristic of the microparticles using the corrected measurement; and

polymeric or pre-polymeric

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(e) determining the quantity or volume of the composition containing the microparticles from the determined magnetic characteristic.

53. (New) A method as set forth in claim 52, wherein said composition comprises a first composition, and said first composition being mixed with a second composition to form a curable resin, said determining step comprising the step of determining the quantity or volume of the first composition in the curable resin.

54. (New) A method of measuring a ratio of an amount of a first composition to a second composition, said first composition containing ferromagnetic or ferrimagnetic microparticles, said method comprising the steps of: (a) providing an instrument; (b) making a measurement using the instrument; (c) correcting said measurement for the effects of temperature variations on the performance of the instrument; (d) determining a magnetic characteristic of the microparticles using the corrected measurement; and (e) determining a ratio of the amount of the first composition to the second composition from the determined magnetic characteristic of the microparticles.

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55. (New) A method for determining the level of stress in a polymeric or pre-polymeric composition, said composition containing ferromagnetic or ferrimagnetic microparticles, said method comprising the steps of: (a) providing an instrument; (b) making a measurement using the instrument; (c) correcting said measurement for the effects of temperature variations on the performance of the instrument; (d) determining a magnetic characteristic of the microparticles using the corrected measurement; and (e) determining the level of stress in the composition from the determined magnetic characteristic of the microparticles.

Remarks

In the Office Action, claims 33 and 37-49 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,334,932 to Nielsen in view of U.S. Patent No.